

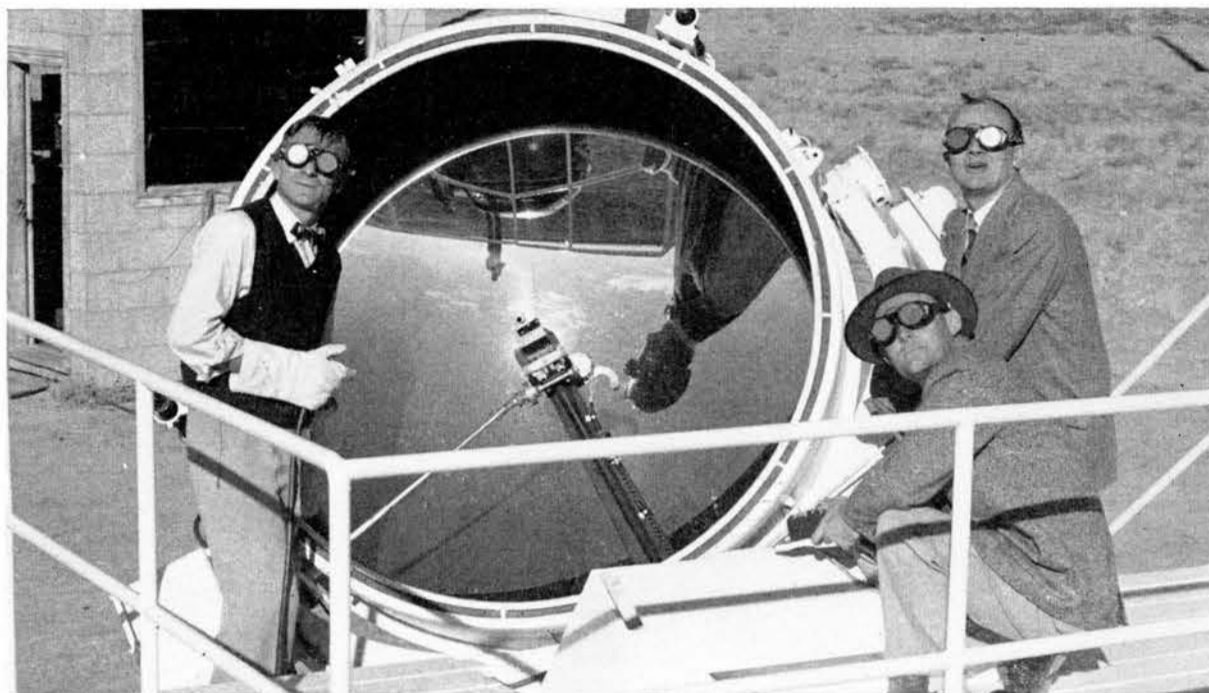


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Vol. 8, No. 1

ALBUQUERQUE, NEW MEXICO

JANUARY 13, 1956



SILVER "EYE" of Sandia's solar furnace gathers brilliant rays of New Mexico sun, turns them into vast amounts of heat. Here Carroll Coonce, left, engineer on the project, checks movement of mirror which tracks sun across the sky. At right are Harlan Lenander, and John Eckhart, both of 5220.

## Solar Furnace Made of Old Searchlight 'Burns' Metals

The giant silver eye of a new Sandia Corporation test device is using the bright rays of New Mexico's sun to produce temperatures ranging to many thousand degrees Fahrenheit!

Called a solar furnace, the newly-developed unit was constructed from an Army surplus anti-aircraft searchlight. It is used here to test thermal characteristics of materials, and to calibrate instruments.

### Follows Sun

The searchlight, some five feet in diameter, follows the sun with the aid of an automatic photocell tracking system. Its great silver mirror focuses the sun's rays into a tight circle less than 1/4-inch in diameter, and produces sustained temperatures higher than can be attained by gas torches or electrical currents, according to Carroll Coonce, 5221, who was instrumental in developing the new device.

Coonce says the sun's reflected heat is "clean," there is no carbon residue, and the specimen can be kept at a higher temperature over a longer period of time than by any other means.

### Concentrates Rays

Rays of the sun are concentrated by the searchlight mirror at a point 25.58 inches above the mirror's surface. The mirror is a highly-polished cast brass slab, plated with rhodium in a concave or saucer-like shape inside the searchlight shell. The mirror has a high reflective capability and more than 70 per cent of the sun's rays falling on its shining surface are reflected.

In operation, Coonce explains, a test specimen is placed into jaws of an automatic holder which once fed carbons into the searchlight arc. Then a manually-controlled shutter which protects the specimen prior to testing is pulled aside to permit radiant energy to pour onto and through the material.

Coonce says that anything will "burn" when struck by the concentrated heat of the sun. Even those metals and elements customarily considered impervious to flame: tungsten, tantalum, 4130-steel, "burn" brightly, and emit a luminous ball of gas which can be seen at the center of the furnace.

### Not Energy Machine

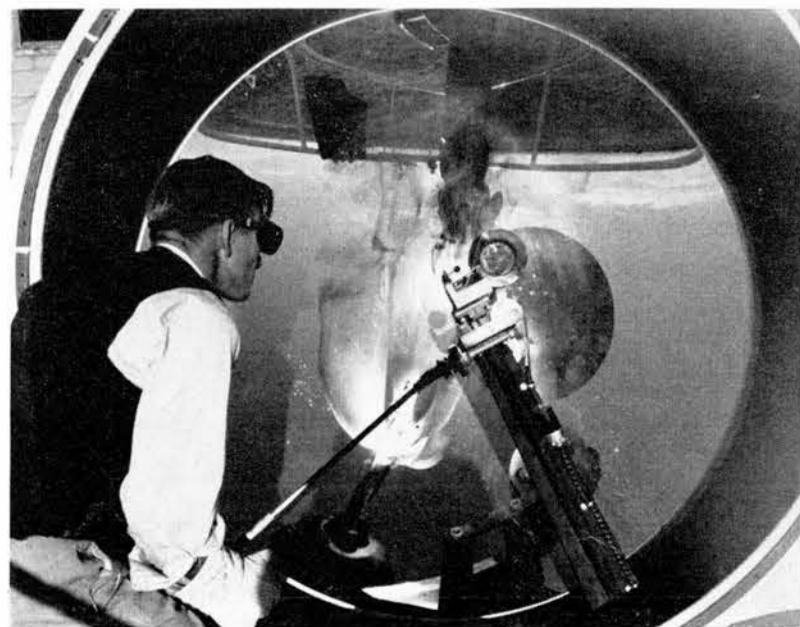
The mirror itself, Coonce explains, is not a solar energy machine. The mirror can only reflect and concentrate the small solar "bullets" or photons shot by the sun across 93,000,000 miles of space; it concen-

trates their energy at the searchlight's focal point.

Temperatures attained depend upon the reflectivity, chemical composition, physical shape and other physical properties of the material tested, Coonce says.

Present work on the solar furnace includes construction of instruments to measure more accurately the temperatures attained within the heat circle. Sandians engaged in the work include George Reis, 5223, who is working on measurement of the specimens' temperatures; Ken Kemp, 5221, who planned some of the optical units; and F. L. Pace and John Lannon, also of 5221, designers of the tracking mechanism which holds the searchlight on the sun.

Carroll Coonce, project engineer, developed the overall solar furnace design and primary programming was done by John Eckhart, Division Supervisor.



BALL of gas and flame from burning steel is revealed in this unusual photograph taken by Roy Dunlap of Sandia's Photo Lab. Actual size of flame is very small, is distorted by curved shape of mirror. Carroll Coonce, 5221, is the operator.

## Reliability, Quality Symposium Attended By Sandia Engineers

Five persons from Sandia Corporation were among 700 scientists and engineers throughout the nation who attended the National Symposium on Reliability and Quality Control in Electronics held in Washington, D. C., Jan. 9 and 10.

Attending from here were L. J. Paddison, 5500; A. F. Cone, 5510; L. A. Smoll, 5533-1; J. M. Wiesen, 5131, and M. C. Schiess, 5533. J. W. McRae, president of Sandia Corporation is a member of the symposium's advisory board. Mr. Paddison is a member of the general committee of the Professional Group on Reliability and Quality Control of the Institute of Radio Engineers, sponsors of the meeting.

Cone, a member of the publicity committee for the symposium, delivered a paper at the meeting on the subject of preventive testing.

## Frank C. Di Luzio Named AEC-SFO Asst. Manager

Frank C. Di Luzio has been appointed to the newly created position of Assistant Manager for Production of the Atomic Energy Commission's operations office in Albuquerque. He assumed his duties yesterday.



Frank C. Di Luzio

The new office has been assigned most of the responsibilities of the former Assistant Manager of Development and Production Operations, a position held by the late Commodore Daniel F. Worth, Jr.

Mr. Di Luzio has been Manager of the Los Alamos Field Office of the AEC since 1952, and has been with the Army and AEC at Los Alamos since 1944.

He is being succeeded in Los Alamos by Paul A. Wilson who has been Assistant Manager of the AEC Field Office there.

Born in Rome, Italy, Mr. Di Luzio was brought to United States as a small child. He attended public schools in Cleveland, Ohio, and later was a student at Case Institute of Technology there. He received a degree in Civil Engineering at the Cleveland Institute of Technology.

He is a member of the Western Society of Engineers, American Society of Civil Engineers, International Association of Hydraulic Research, New Mexico Water Resources and Development Committee, Advisory Committee for New Mexico to National Rivers and Harbors Congress, and the Governor's Advisory Committee on Economic Development.

## Credit Union Completes Biggest Year In History; Members to Meet Jan. 24

Members of the Sandia Laboratory Federal Credit Union will meet at 7:30 p. m., Jan. 24 in the Coronado Club for their annual business meeting.

Agenda for the meeting includes: Reports, consideration of dividend and elections.

Reports will be heard from the board of directors, supervisory committee, credit committee and treasurer.

Members will also vote on a divi-

## George P. Kraker Renamed SFO Deputy Manager

George P. Kraker, veteran administrator in the Atomic Energy Commission's weapons organization, has



George P. Kraker

—assumes previous post—

resumed his duties as Deputy Manager of Santa Fe Operations.

Mr. Kraker returns to his staff position after serving as Assistant Manager of SFO Inspection and Storage Operations. His prior service as Deputy Manager of Santa Fe Operations was from 1951 to 1954.

A native of Gallup, N. Mex., he is a graduate of the U. S. Naval Academy at Annapolis, saw considerable service with the Navy in overseas combat areas during World War II, and ashore with the Bureau of Ordnance.

He retired with the rank of Rear Admiral in June, 1948, to accept appointment as Manager of Sandia Field Office of the AEC.

Mr. and Mrs. Kraker reside at Sandia Base. They are the parents of two children and four grandchildren.

## Pollard Speaks On Transistors to AIEE

A meeting of the Northern New Mexico section of the American Institute of Electrical Engineers will be held Jan. 17 at 7:30 p. m. at the Electrical Engineering building on the University campus.

Neith Pollard, 5413, will speak on "Transistors."

## Engineers Meet

The New Mexico Society of Professional Engineers will meet Jan. 23 in Room 101 of the University of New Mexico chemistry building on the campus.

After a dinner in the women's dormitory dining hall at 6:30 p. m., members will convene in the Chemistry Building for election of officers and other business.



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**'Seamster' Determined**

Lone male in an evening sewing class at Albuquerque High School is Bonifacio Lopez, 2711-6. Undaunted by the impact of his initial appearance in the ladies' class last week, Bonifacio stuck to his needles and is stitching for himself some fancy western shirts and jackets.

**Sick and Getting Better**

Convalescing at home following a lengthy stay in Bataan Hospital is Jerry Neuberger, 2532. "Get Well" cards may be addressed to her at: Box 333, Cedar Crest, N. M. Leo Apodaca, an order clerk in 7241, has been in St. Joseph's Hospital since Jan. 1. Tom Harrison, 2553, left Jan. 4 for San Antonio, Tex., where he expects to undergo surgery. On Jan. 2, Gertrude Stewart, 3153, returned to work after an illness of several months.

**Skiers Await Snow**

Art Eldridge, 1652, vice-president of the Albuquerque Ski Club, reports that ski enthusiasts are eagerly awaiting signs of snow at La Madera ski run so the club and the Southwestern Ski Council can push ahead with plans for racing competitions and other winter sports events previously scheduled for January and early February.

**Vacation Pleasure**

A "June in January" holiday was enjoyed by Betty Risk, 1925-5, and husband Bill, 2122-1, who spent a Yuletide vacation eating dates, pecans, and basking in the sun at Phoenix, Ariz., the home of Betty's mother.

**Sandian Married**

The marriage of David W. Miller, on military leave from 1932, and Barbara Morrison, of Albuquerque, was an event of Dec. 30 in First Presbyterian Church. Dave is presently assigned to AFSWP at Sandia Base. He is the son of Jim Miller, 2351, with whom the couple is living at 2409 Parsifal NE until Dave's discharge from the Army in October this year.

**Catches Big Yellowtail**

"Cap" Carmody, 2223, and his wife, Elsie, spent the Christmas holidays at Guaymas, Mex. Cap went on sev-



eral fishing trips with friends of the family, Dr. and Mrs. George C. Widney, Sr., of Albuquerque, who are spending the holidays in Guaymas. As proof of the fishing, Cap produces this photograph of a 21-pound yellow tail.

**New Year's Eve Wedding**

On New Year's Eve, Clarence M. Coats, 2553, and Isabel Atencio, of Albuquerque, were married in Berna-Illo. They now reside at 412 19th St.

**2500 Party**

The 2500 Christmas Party last month netted a profit of \$15.07, which will be donated to the March of Dimes.

**Just Under the Wire**

Arriving 14 minutes before the stroke of midnight, Dec. 31, was Sally Rae Burks, daughter of Mr. and Mrs. Charles C. Burks. The father of this new '55 income tax deduction works in 1322, Carmel Mares, 3122, and his wife, Beatriz, also became parents the last day of the year. Their daughter, Cecilia Anna, was born at 3:45 p. m.

**Faculty Members**

Bennett L. Basore, 1441, will be teaching a graduate course in the Engineering College at the University of New Mexico this spring term. His class will be Communication Theory. Three other Sandians, all consultants, will be teaching in Electrical Engineering — C. S. Williams, F. J. Janza and E. F. Buell.

**Southern Honeymoon**

Honeymooning in Indiana, New Orleans, and Houston, Tex., are Andrew Lieber, 1223-1, and his bride, the former Marguerite Cox, AEC-SFOO. The pair was married Jan. 7 in the Catholic Chapel on Sandia Base, with a reception following at the Coronado Club. Upon their return to Albuquerque, they will be at home at 1808 Alvarado NE.



THREE GENERATIONS in this family photograph are represented by L. to R. Marie Ream, 3100 grandson, Gary Kent Ferguson; and Marie's daughter, Mrs. Beverly Ferguson, of Fairbury, Nebr.

**Crystal Collection**

Crystal specimens from practically all 48 states and many foreign countries compose the private rock collection owned by Ellen Wood, 2533-3. Started only five years ago, the collection already boasts several thousand varieties and has taken honors at gem and mineral exhibits.

**How About a Honeymooners Sandwich Week?**

Read the calendar listing special days, weeks and months of the year for 1956 — it will make your head spin.

In January there is National Anniversary of the Tea Bag. There will also be National Crochet Week, Large Size Week and Odorless Decoration Week.

February will have the well-known Ground Hog Day, the not-so-well-known National Kraut and Frankfurter Week.

March provides Mardi Gras (Shrove) Tuesday, Texas Independence Day, National Peanut Week and Irish Linen Week.

April is the month of Maryland Day, Wildlife Week, Laugh Week, and National Daughters Day.

The year runs on pretty much the same with each month setting aside a period of time for such things as: Confederate Memorial Day, Fig Festival, Straw Hat Day, Foot Health Week, Secretaries Day, Old Maid's Day, Let's Play Tennis Week.

If we look far enough we'll find National Ice Tea Time, Bow Tie Week, Old Stove Day, National Donut Month, Save The Horse Week, Cleaner Air Week, Beggars Night, Posture Week, Car Week, Sadie Hawkins Day, Holiday Butter Cookies Day and the Day Before Christmas which is a legal holiday in South Carolina.

The Chamber of Commerce of the United States publishes a list of these days each year in booklet form and if you want to know what is going on you may write them in Washington, D. C.

We're not trying to draw any moral, teach a lesson or deliver a sermon with this article, but thought you might enjoy reading a bit of Americana which helps to explain what keeps our country young at heart and long on initiative. We could do another feature on "What Rising Starlets Have Been Crowned Queen Of."

Oh, yes. About a Honeymooners Sandwich Week. Maybe it would appeal to more than the newly weds. What's a honeymoon sandwich? Just "lettuce alone."

All of us!



SALTON SEA TEST BASE  
Christmas - 1955

HOLIDAY FESTIVITIES — Santa Claus was a much anticipated "ole" fellow this Christmas at Salton Sea Test Base and a party at San Felipe Lodge greeted the occasion.

The program was under the direction of Mrs. Harry Schnarr. The Nativity Scene was re-enacted in a beautiful set complete with Shepherds, Wise Men, Joseph and Mary

and the Star.

Narrations were done by Ida Neil of San Felipe Lodge and A. L. Pearson, 2483-1. Ted Sprink, 2480, was master of ceremonies and youngsters of the Sandia Corporation and Fred B. Prophet Company employees were the entranced audience.

Christmas carols were sung and stockings were hung by the chimney. After the program refreshments were served in the Lodge dining room.

Salton Sea Test Base family party has become a happy tradition for the personnel of Sandia Corporation's "Southern California Branch."

# Sandianotes



**HOLIDAY POTLUCK**—Members of Division 1342 observed the holiday season with a potluck dinner at the home of Bill and Pat Barth in Cedarcrest.

**Wits End Catch**

A six-pound, three-ounce brook trout caught by Irving M. Kodel, 2552-3, at the Wits End Ranch at



Bayfield, Colo., will be entered in the 1955 Field and Stream Magazine contest. For his catch, Kodel received, courtesy of Wits End Ranch, an all expense paid, four-day, 62-mile pack-in trip to Colorado's San Juan Wilderness area.

**Pigeon Club Official**

Re-elected secretary of the Albuquerque Racing Pigeon Club this week was Ed Harley, 1711. Ed and the other dozen active club members are already preparing for the spring and fall racing seasons. He has a racing team of 14, over one year old, which he will enter in April's eight racing events, ranging from 75 to 600 miles. He also owns four pair of breeders, and in February he will begin breeding for the fall series.

## Congratulations

**BORN TO:**

Mr. and Mrs. Carmel Mares, 3122, a daughter, Cecilia Anna, born Dec. 31.

Mr. and Mrs. J. L. Wilson, 1652-3, a son, Reid Keith, Dec. 28.

Mr. and Mrs. J. R. Roy, 1621-3, a daughter, Tracy Lynn, Dec. 31.

Mr. and Mrs. Richard A. Rael, 2221-1, a daughter, Valerie Jean, Dec. 3.

Mr. and Mrs. R. E. Henderson, 1632, a son, Kirk, Dec. 17.

Mr. and Mrs. Floyd Maston, 2721, a daughter, Jessica Lynn, Dec. 11.

Mr. and Mrs. Al Herrera, 2721, a daughter, Lorraine, Dec. 22.

Mr. and Mrs. Skip Baca, 2465, a daughter, Mary Dolores, Dec. 29.

Mr. and Mrs. Carl Michael, 2417, a son, Glenn Scott, Dec. 8.

Mr. and Mrs. John Cunningham, 1442-2, a son, Paul Church, Jan. 6.

Mr. and Mrs. Robert G. Rickey, 5321, a daughter, Janet Marie, born Dec. 31.

**Getting Well**

A happy report comes from Salton Sea Test Base that the son of Tony Uszuko, 2481, is back home from the hospital after an attack of polio. He is progressing satisfactorily.

**South to Christmas**

Eugene W. Pierce, 3120, and his family vacationed in Mexico over the Holiday season. They drove 3500 miles and stayed in their trailer every night of their 10-day vacation but one. According to Gene they had some "experiences" but no bad ones.

**Salton Sea Stork**

Congratulations to Chester Corrigan, Lawrence Crackel and George Newfield, all 2483, Salton Sea, who recently became fathers.

## Professional R Group E Activities

**Antennas-Microwave**

The IRE professional groups on antennas and propagation, and microwave theory and techniques will meet jointly at the home of George Oltman, 1004 Parsifal NE, Jan. 23 at 8 p. m.

A tapescript by H. C. Nelson of the Polytechnic Research and Development Co., Brooklyn, N. Y., will be presented. Subject of the script is "Microwave Techniques and Equipment Used in Impedance Power and Frequency Measurements."

**Circuit Theory**

Julian E. Gross, 5413, will address members of the IRE professional group on circuit theory Jan. 25 at 8 p. m., on "Circuits for Computer Use." The meeting will be held in Room 218, Mitchell Hall, on the University campus.

**A&M Alumni Gather**

Alumni of Colorado A&M College will hold a dinner get-together at Leonard's on Jan. 19 at 7:30 p.m. Sandia graduates of A&M and their guests are invited.

Movies of the Colorado A&M-University of Colorado football game and slides of the new campus building program will be shown.

Reservations may be obtained by calling Rod Chisholm, Alb. 2-6262.

**Welcome Home**

Sandians at Salton Sea Test Base are happy to have back home Mrs. Ted A. Sprink who has been in New Jersey for some time. She has been with her son and daughter-in-law. Her daughter-in-law is recovering from a severe attack of polio.



**CREWCUT**, barefoot Steven Biegel prefers a plane every time. He is the 19-month-old son of Jerry and John Biegel, 2533.

## Stanford Professor Speaks to Members Of IRE Jan. 20

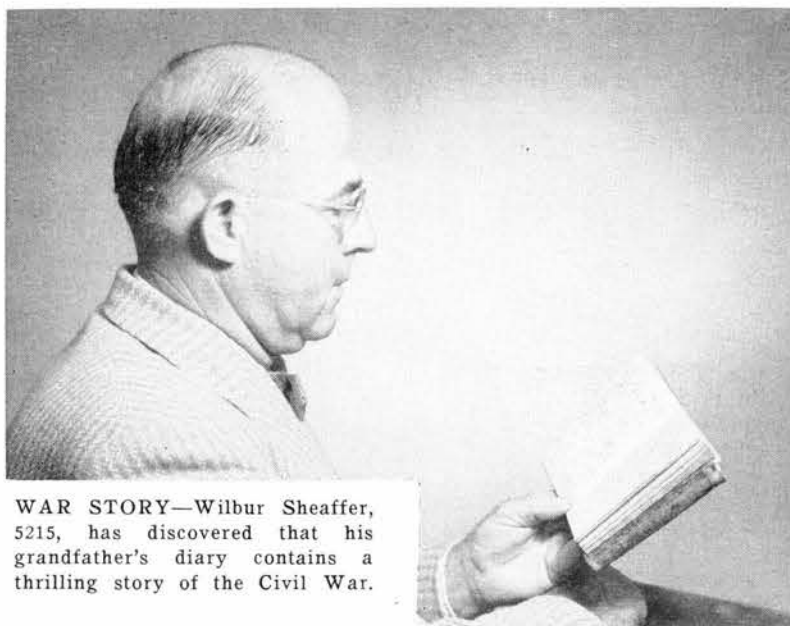
Dean A. Watkins, associate professor of electrical engineering at Stanford University, will speak on "Applications of Traveling Wave Tubes" when the Albuquerque-Los Alamos section of the Institute of Radio Engineers meets Jan. 20. The meeting is set for 8 p.m., in Room 101, Mitchell Hall, on the University campus.

Dr. Watkins was employed at Los Alamos in 1948-49, and has a wide background in electrical engineering. He obtained his BS degree at Iowa State College, and his Ph.D at Stanford in 1951.

## Valparaiso Alumni

Members and guests of the Valparaiso Technical Institute Alumni association will tour the studios and transmitter facilities of KOAT-TV Jan. 13, at 7:30 p.m., according to James Drake, 6152.

Tour begins at 122 Tulane Drive SE, and will include the transmitter site on the west mesa. Further information may be obtained from Drake at ext. 40232.



**WAR STORY**—Wilbur Sheaffer, 5215, has discovered that his grandfather's diary contains a thrilling story of the Civil War.

## Grand-dad Stood Guard, Had Fatigue Duty During Civil War Like Today's GI

"February 6th, 1864. — Left home for the Army. . . .  
"January 10th, 1866. . . . This day at 12 M I was discharged from the U. S. Service once more free."

Between these dates, Benjamin F. Sheaffer, grandfather of Wilbur F. Sheaffer, 5215, wrote a stirring tale of the War Between The States — as he saw it.

**Tale of War**

Written in a neat script on yellowing pages of a leather bound book is the simple account of the boredom, thrills, drudgery and pain of war.

The book came into Wilbur's hands a year ago through a relative in California. For some 40 years prior to that it had been in a bank safety deposit box. Still in a good state of preservation, the book is a prized possession today in the Sheaffer household.

Benjamin Sheaffer's tales of the war bear such passages as these: "The fight was desperate and lasted all day. . . ."

"This day I helped bury our dead who bravely fought and fell on the battlefield."

"We had a very good dinner of cabbage and potatoes."

"The salute of 200 guns has been fired for the surrender of Lee and his whole army — today I fell in the mud of Opequan creek."

"During the day we received bad news by telegraph that Lincoln was assassinated."

**"I Had Guard"**

Day after day, for long weeks his only comments on activities were to the effect that "I had guard" or "I was on fatigue duty."

A good businessman, Soldier Sheaffer wrote down in the book an account of the money sent home. He recorded his debts and the money owed him. He made a note of his pension claim number.

Some of his experiences are not recorded in words. After reports of a battle his handwriting appeared unsteady. An ardent follower of the weather conditions, he commented on rain frequently and some of these pages bear water marks.

And like many veterans of later wars, after the fighting was over Grandfather Sheaffer looked far afield for new opportunities. In a

pocket inside the back cover of the book is a pamphlet addressed to members of the Grand Army of the Republic:

"Free lands in the west!" it promised, and told how 160 acres near Lamar, Colo., was to be had for \$16.

**Lived in Pennsylvania**

But ex-soldier Shaeffer didn't go west right away. He settled down in Pennsylvania and became a successful farmer. But after some years the call of the west proved to be too great to ignore.

In 1880 Benjamin and his eight children climbed aboard a prairie schooner and headed for Kansas where they homesteaded.

On that farm Wilbur Sheaffer was born. The farm still remains in the Sheaffer family and for many years a trunk in the farmhouse attic concealed the priceless diary. Another son of Benjamin stored it safely in a Pasadena bank for four decades and now it's in Wilbur's hands.

"When I'm through with it," Wilbur says, "I hope it will stay in the hands of another Sheaffer, then another and another."

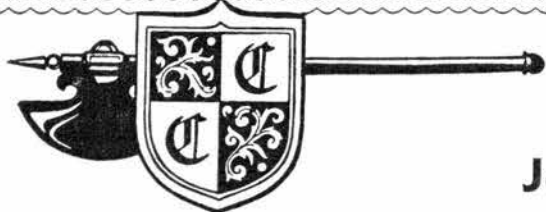
## Antique Collector Speaks to Club

"Early American Clocks" will be the subject of a talk given by Lee Deeter, 1440, Jan. 16 at 8 p. m. He will speak to the Albuquerque Arts and Antiques Club in the Hostess Room of the Southern Union Gas Company.

Lee is vice-president of the club and a member of the National Association of Watch and Clock Collectors.

Guests are invited to bring any clocks representing early Americana. On display will be some early American clocks from Mr. Deeter's collection. Colored slides will be used to illustrate the talk.

# coronado club



Jan. 13 - 28

<b>Sun., Jan. 15</b> GRAND OLE OPRY! Songs, Dances Entertainment 8 p.m. - 12	<b>Mon., Jan. 16</b> Open	<b>Tues., Jan. 17</b> Open	<b>Wed., Jan. 18</b> BINGO 8 p.m. \$1 a card	<b>Thurs., Jan. 19</b> DUPLICATE BRIDGE 7:30-10:45 p.m.	<b>Fri., Jan. 20</b> SOCIAL HOUR 5:15-6:45 p.m. Stylists Comba TEENS DANCE 8 - 11:30 p.m.	<b>Sat., Jan. 21</b> Open
<b>Sun., Jan. 22</b> Open	<b>Mon., Jan. 23</b> Open	<b>Tues., Jan. 24</b> CHESS NIGHT 7:30 p.m.	<b>Wed., Jan. 25</b> LADIES BRIDGE 1:15 p.m.	<b>Thurs., Jan. 26</b> DUPLICATE BRIDGE 7:30-10:45 p.m.	<b>Fri., Jan. 27</b> SOCIAL HOUR 5:15-6:45 p.m. SQUARE DANCE 8-11:30 p.m.	<b>Sat., Jan. 28</b> DANCE Dreamweavers Orchestra 9 p.m. - 1 50c person

# EVENTS

## UNM Community College Offering Many Engineering, Math Courses in Evening

Registration for second semester evening credit courses at the University of New Mexico takes place Friday and Saturday, Feb. 3 and 4, in Carlisle gymnasium on the campus. Classes begin Monday, Feb. 6.

Listed below are some courses which are of interest to many Sandia Corporation employees.

### Business Administration

Business Law, Principles of Marketing, Credits and Collections, Collective Bargaining.

### Accounting

Principles of Accounting, Principles of Accounting laboratory, Intermediate Accounting, Income Tax Accounting, Seminar in Advanced Tax Accounting.

### Electrical Engineering

Principles of Electronic Circuits, Communication Theory, Microwave Technique, Digital Computers.

### Mechanical Engineering

Design Analysis.

### Mathematics

Intermediate Algebra, College Algebra, Plane Trigonometry, Plane and Solid Analytical Geometry, Introduction to Calculus, Mathematics of Statistics, Advanced Calculus, Partial Differential Equations and Orthogonal systems, Theory of Functions of a Real Variable.

### Physics

Introduction to Weather and Climate, Contemporary Physics, Methods of Theoretical Physics (advanced), Quantum Mechanics.

Information concerning these courses may be obtained from the UNM Community College office, telephone Alb. 7-0391 or 2-9013.

Offices of the Community Evening College are located in the Administration Building, Room 208. The office will be open all day and from Jan. 28 to Mar. 3 will remain open 6 to 8 p. m. Monday through Thursday and from 8 to 12 Saturdays.

Non-college credit courses of interest to Sandia's machine shop personnel include: Acetylene Welding, Arc Welding, offered on both Monday and Tuesday evenings of each week; Basic Electricity and Electronics, Industrial Trigonometry, Mechanical Drawing, and Woodworking.

A supply of bulletins for Community College courses is now in Employee Services office, Bldg. 829.

High school level courses are available at the Albuquerque High School evening sessions, but enrollment in most beginner's classes is now nearing end of registration period. Courses available include: Silk Screening, Copper Tooling, Block Printing, Woodworking, Painting and Sketching, Sewing, Leathercrafts, Ceramics and Copper Tooling, Typing, Shorthand, Bookkeeping, Income Tax, Business Arithmetic, Filing, Business English, English for Non-Speakers, and Beginning Spanish.

Further information on high school shop and business courses may be obtained through the Administration Office, Board of Education, Alb. 7-9541.

## Jerry Bass Rescues Neighbor From Smoke-Filled Home New Year's Eve

As the Old Year turned into 1956, Jerry Bass of 2353 returned to his duplex home, smelled smoke, moments later carried an unconscious neighbor to safety from the smudge-filled apartment in the same building.

Jerry, a receiving clerk with the Sandia Corporation since 1949, says the woman apparently was smoking in bed and fell asleep. Her smoldering cigarette set the bedclothes afire. The neighbor was taken to a hospital where she was treated and released. Albuquerque police reported that Jerry's quick action probably saved the woman's life.

Jerry Bass and his wife, Minnie, live at 1642 Del Norte Drive SW.

Two of Jerry's sons-in-law also work for the Corporation: Clem M. Dixon, Jr., 2353, and Harvey Large, 1941.

## Historical Tool Exhibit Will Be Here This Month

Two sessions of the "Civilization Through Tools" exhibition will be held Jan. 18 in Albuquerque.

The exhibit, which is being brought here by the American Society of Tool Engineers and the American Society of Mechanical Engineers, may be seen at 4 p. m. and 7:30 p. m. in the Albuquerque High School auditorium.

The session at 4 will be for public school and university students, Boy Scouts, Girl Scouts and the general public.

At 7:30 p. m. members of the Council of Technical and Scientific Societies and their guests, businessmen, military, and the faculties of the public schools and University are invited.

Following are the Sandia Corporation employees who are helping arrange the exhibition:

Nicholas Sannella, 1424, president of Joint Council of Technical and Scientific Societies; Robert W. Henderson, 1200, president of ASME; Julian C. Moody, 1651, president, ASTE.

Hubert R. Hanen, 2532, is chairman of the education committee; Paul Stewart, 2532, chairman of the military committee. Allen F. Hurlford, 1431, is acting as council coordinator in presentation of the exhibit.

Don Bliss, 2533, and Larry Lowe, 2113, are assisting with publicity for the exhibit.

## Ask Meteorologists To Prepare Papers For National Meeting

Officials of the Albuquerque branch of the American Meteorological Society this week invited interested southwestern weathermen to submit papers on any phase of their work, according to C. Eugene Buell, Sandia Corporation consultant in 5123. The papers will be considered for the national meeting of the Society to be held in Albuquerque Sept. 5-7, 1956.

Although the conference will emphasize southwestern meteorology: dry climates, cloud seeding and cloud physics, papers on any aspect of meteorological science will be welcomed.

## Grand Ole Opry Here

A gala appearance of "Grand Ole Opry," direct from Radio Station WSM, Nashville, Tenn., will take place in the Coronado Club Jan. 15, from 8 p. m. to 12.

Included in the stars who will sing, dance, and entertain here are Smiley Wilson, Kitty Wilson, Sherman Collins.

Prices are \$1.10 per person for members, \$1.65 for guests.

## J. R. Townsend to Do Special Study For Government

The Office of Defense Mobilization has announced that John R. Townsend, Sandia Corporation Director of Materials and Standards Engineering, will do a special study on the shortage of nickel for that agency.

Arthur S. Flemming, ODM Director, says that "the study will put particular emphasis on the defense position for this metal and the impact defense requirements are having on the civilian economy."

Nickel has been scarce for civilian use since the start of the Korean War in 1950.

Mr. Townsend's study will analyze all government activities relating to nickel, including the stockpiling and expansion programs, as well as the set-asides for military and atomic energy needs. Nickel, the ODM pointed out, is a vital material in jet planes, the atomic energy program and many other military applications.

Mr. Townsend is Chairman of the Materials Advisory Board of the National Academy of Sciences and has served as materials consultant to the Office of Defense Mobilization.

Assigned to Sandia Corporation in Dec., 1952, he came here from Bell Telephone Laboratories where he was Director of Materials Applications Engineering.

## S. C. Hight Tells High School Students Of New Scientific Field - Solar Power

Science students at three Albuquerque high school are hearing addresses by Stuart C. Hight, Sandia Corporation Director of Research, on "Ap-



Stuart C. Hight  
—speaks to young scientists—

plied Solar Energy" today. Mr. Hight was Sandia Corporation delegate to the First World Symposium on Solar Energy, held in Phoenix, Ariz., in November.

He is speaking at Valley High School at 9 a. m., at Albuquerque High School at 10:50, and at Highland High School at 1:50 p. m. The hour-long talks will be illus-

trated by color slides depicting solar machines and heat generators on display at the Phoenix, Ariz., conclave.

More than 1100 U. S. businessmen, engineers, and solar energy authorities from 34 countries were in attendance at the meeting.

Mr. Hight has prepared his talks for high school science students in an effort to interest potential scientists in a growing and challenging form of industrial power. He spoke on the same subject last night before members of the Albuquerque Philatelic Society.

The First World Symposium on Solar Energy, Mr. Hight says, represented a joint effort to assemble world knowledge on solar energy. Some 140 technical papers and panels discussed the possibilities of applying sun-generated heat to industrial and domestic use.

Solar power is being considered as a primary source of energy for undeveloped and backward countries. Mr. Hight foresees practical use in the near future of solar heat generators for homes. He is telling students that domestic solar water heaters are already in use in many parts of Florida.

Solar energy cannot compete today with conventional sources of heat and power, Mr. Hight says, but will assume an ever-increasing importance when oil and gas reserves become depleted in the U. S. and elsewhere.

## Bowling Tournament Deadline Monday

Last call for bowling tournament entries!

Only three days remain for interested Coronado Club bowlers to submit entries in the annual Men's Bowling Tourney which begins Jan. 28. Singles, doubles and team entry blanks must be in by 5 p. m. on Jan. 16.

Highest average as of Jan. 13 must be used. Any Club member with an approved ABC bowling average, based on a minimum of 18 games played, may enter. Entry fees are \$2.25 for each entry, with an optional 25 cents for all events.

Cash prizes will be awarded for each ten entries in any category. A new bowling ball will be first prize for all events. The Coronado Club will also award a trophy to winner of each event.

Entry blanks are available from Coronado Club league secretaries, team captains, Ronnie Heuer, AEC, or Charlie Kaspar, bowling chairman.

## Mountain Club to Explore Ancient Indian Dwellings

The primitive ruins of Pueblo Bonito in Chaco Canyon will be explored by members of the New Mexico Mountain Club Jan. 14 and 15. The largest group of Indian dwellings north of central Mexico, they date to 1100-1235, and are the best preserved from that period in the Southwest, according to Hank Tindall, 1215, club president.

The group will meet at 1 p. m., Saturday, Jan. 14, at Nob Hill Drug, 3500 Central SE, and will be led by C. R. Cundiff, 2551.

## Sympathy

To Bertha Merrill, 5241-2, and husband Jack, 5221, for the death of her father Jan. 4 in Albuquerque.



MAKING A CHECK of incoming shipments at a Sandia warehouse is Jerry Bass, 2353, who entered a burning apartment to save a woman's life.

For a BRIGHTER FUTURE

Join the PAYROLL SAVINGS PLAN U. S. SAVINGS BONDS

## Organization of Corporation Has Changed Recently

With the appointment of three new vice-presidents and a general rearrangement of several technical organizations, Sandia Corporation organization chart took on a new appearance Jan. 1.

To help Sandia employees understand the new alignment, a new organization chart is published on this page.

The chart shows these changes from the former organizational set-up:

Glenn A. Fowler is now Vice-President — Research, 5000, succeeding Walter A. MacNair who has returned to Bell Laboratories.

Fred J. Given is also a new Vice-President heading the new organization, R&D (Research and Development) Technical Services, 7000. Reporting to him are four superintendencies: Military Liaison Services, 7100 (formerly 1700); Staff Services, 7200 (formerly 1900); Surveillance and Operations, 7300 (formerly 5600). A new superintendency, Drafting and Specifications, 7400, is performing work previously done by Engineering Service Department, 1640, and the specifications writing functions of division 1623. The superintendency of this organization has not yet been named.

Fred Schmidt, Vice-President — Operations, 2000, is retiring at his own request Jan. 31 and will be succeeded by Raymond P. Lutz, who has been Superintendent of Programming and Manufacturing Engineering, 2500.

The activities of the former 5300 and 5400 organizations which were under Mr. Fowler and Mr. Given are transferred to L. A. Hopkins who now has the title, Director of Component Development, 1400.

With the exception of the Electronic Test Equipment Department, 1340, (now 1440) those weapon system development organizations, 1320 and 1330, formerly reporting to Mr. Hopkins, have been transferred to the 1200 organization headed by R. W. Henderson.

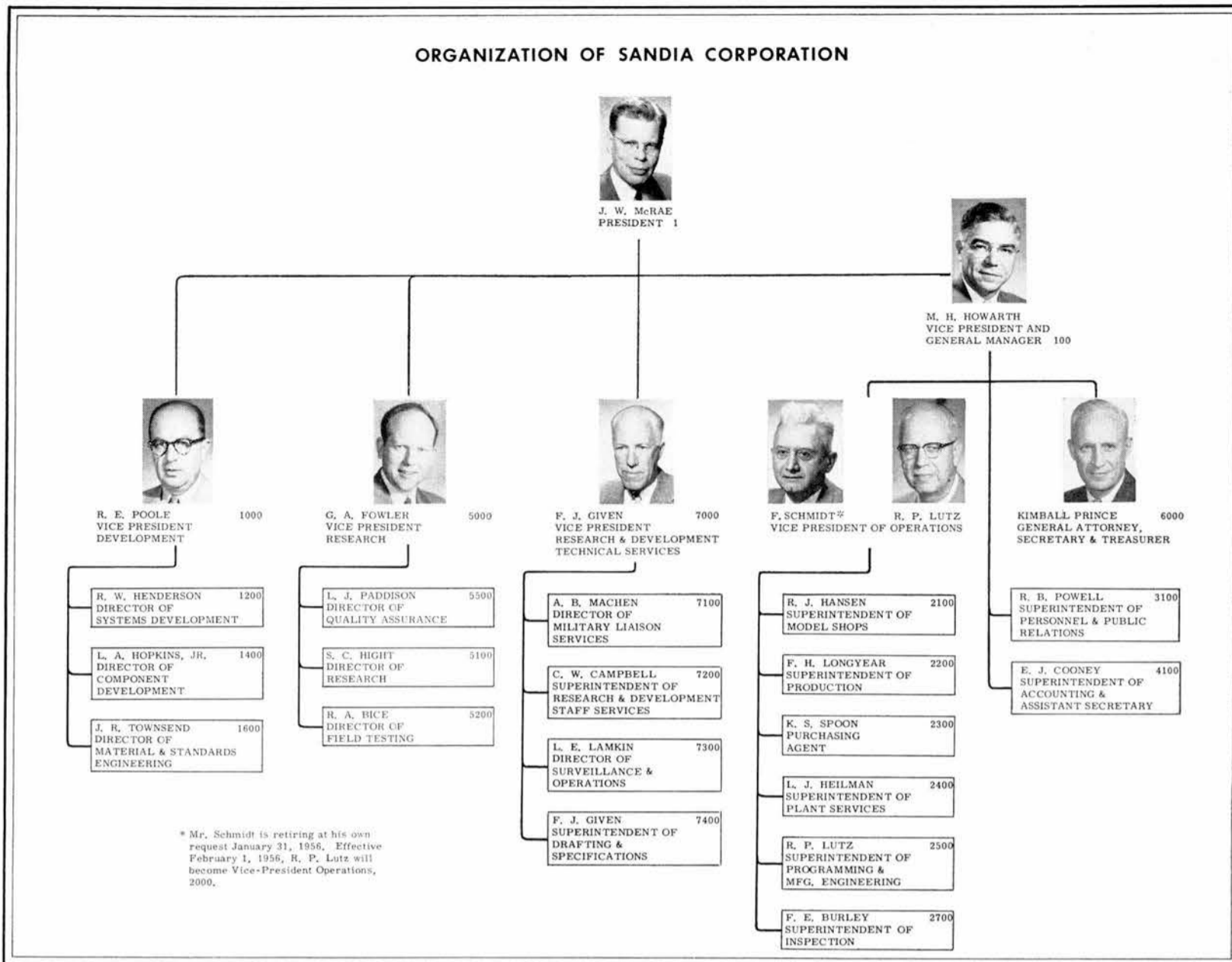
### Sandian Will Teach Engineering Drawing

George W. Randle, a mechanical engineer in 1335, will teach a course in Engineering Drawing at the evening session of St. Joseph's College for the spring semester.

George is a registered professional engineer in the state of New Mexico, holds BS degrees in mechanical and electrical engineering from the University of New Mexico and the master's degree from the University of Oklahoma.

The class will teach the use of drawing instruments, lettering, principles of orthographic projections, and other mechanical drawing fundamentals. It will meet each Monday evening, from 6:45 to 9:25.

Interested applicants are urged to contact the Registrar, St. Joseph's College, for further information.



### Tech Writers Hear Conference Reports

The Albuquerque Society of Technical Writers will hear two brief reports of technical writing conferences attended by Sandians in recent weeks.

Lee Parman, 7123-1, will report on the Conference on Scientific Editorial Problems held recently in Atlanta, Ga., under the sponsorship of the American Association for the Advancement of Science.

Reporting on the Symposium on Standardization of Technical Manuals held in Los Angeles on the UCLA campus will be G. C. Holloway, 7120.

Reservations may be obtained from Justin Heineman, ext. 21148. Tickets are 25 cents per person. Refreshments will be served. All interested technical writing personnel, editors, and their guests are welcome.

### 'Blast' Appointment

Max Weber, 5122, has been appointed chairman of the publications committee for the IRE publication, "The Blast." Weber succeeds Bennett Basore, 5441.

EDWARD C. DOMME to supervisor of the Program Services Division, 2523.

Ed's Sandia service dates from February, 1951, when he was hired after graduation with a BBA degree from the University of New Mexico, and took up new duties in Production and Engineering Methods division. In February, 1953, he was promoted to section supervisor, Engineering Methods, and later transferred to the Requisition Control Section, 2523-2. He became supervisor of the Contractor Co-ordinator section, in January, 1955.

During World War II, Ed served as a patrol bomber pilot in the Asiatic-Pacific Theater with the U. S. Navy. He is a member of Delta Sigma Pi, professional business fraternity.



## Promotions

HAROLD H. BRUEGGEMAN to supervisor of Division A, 2521.

Hal came to the Corporation in 1951, after five years in partnership with his father in an oil field parts manufacturing concern in Enid, Okla. In June, 1953, he was promoted to supervisor of section 2531-1, Manufacturing Relations Engineering Department.

Prior employment has included five years as a field service engineer with the Wright Aeronautical Engineering Corp., at Woodridge, N. J., and 2½ years as a technical representative with the Lockheed Overseas Corp.

A graduate of Oklahoma A&M College with the BS degree in mechanical engineering, he is a member of Sigma Tau, honorary engineering fraternity, and Pi Tau Sigma, mechanical engineering honorary.



HAROLD F. GUSTAFSON, to supervisor of Manufacturing Relations Engineering Section, 2531-1, Manufacturing Relations Engineering Department I.

Gus began his Sandia Corporation service in March, 1951, after employment with the Pure Oil Co., at Dol-larhide, Tex., where he was a mechanical engineer.

A graduate of the New Mexico A&M College at Las Cruces, he participated in naval campaigns in the Pacific theater during World War II. He was a motor machinist's mate assigned to the submarine, USS Cutlass, which sailed in Japanese waters.



ROBERT S. LEMM, to manager of the newly-created Electronics and Standards Department, 2130.

Previously, Bob was supervisor of the Inspection Division, 2112. He came to Sandia Corporation in October, 1950, from Los Angeles, Calif., where he was self-employed as a manufacturer of medical electronic equipment.

Bob studied mining engineering at Michigan College of Mining and Technology, Houghton, Mich., mechanical engineering at Ohio Mechanics Institute, Cincinnati, and metallurgy at California Institute of Technology, Pasadena.

He is a member of the National Society of Professional Engineers, the Society of American Military Engineers, and vice-chairman of the Albuquerque section of the American Society for Metals.

A member of the New Mexico Society for Professional Engineers, he holds a professional engineers' license.

WILLIAM A. LITTLE to supervisor of section 1211-2, Engineering Department A.

A native of St. Louis, Mich., and a graduate of Michigan State University where he received his B.S. degree in Electrical Engineering in June, 1951, Bill came to Sandia Corporation as an electrical engineer assigned to 1270.

From 1942 to 1946 he served in the Air Force as a radio instructor at Scott Field. A member of the American Institute of Electrical Engineers, Bill is also a member of the honorary engineering fraternity Tau Beta Pi, Eta Kappa Nu, honorary electrical engineering fraternity, and Pi Nu Epsilon, honorary mathematics fraternity.



# Service Awards Going Out To 4332 Sandia Employees

In the near future more than 4000 Sandia Corporation employees will have received service recognition awards as the initial phase of a program being launched this month.

Certificates are going to 2537 employees who have completed over two but less than five years service. Pins or lapel buttons bearing the colorful Thunderbird emblem will be awarded to 1771 employees having over five years with the Corporation and to 24 employees who will have completed 10 years of service by the end of January.

For the 10-year awards the emblems will be mounted on the employee's choice of jewelry, including tie bars or chains for men and brooches and bracelets for women. There will be no charge to employees for any of the awards. The total number receiving service recognition

awards this month is 4332, more than 75 per cent of the employees on the roll.

Effective service dates for many employees are prior to the date of the founding of Sandia Corporation in November, 1949. For those employees who were here before then, the Sandia Corporation service date is the date employment began at Los Alamos or at Sandia Laboratory while it was operated by the University of California.

The design chosen for the emblems was submitted by H. C. "Clyde" Walker, 7362. Clyde's idea for a "thunderbird" emblem was born while he was away from Albuquerque on a business trip. He sketched his impression on paper and submitted it as soon as he returned. His was the last entry to get in before the contest

deadline. The winner was selected by employee balloting.

His award for designing the emblem was presented by James W. McRae, President of Sandia Corporation — U. S. Savings Bonds with maturity value of \$75.

Beginning next month, the emblems and certificates will be presented to employees on their second, fifth and tenth anniversaries at Sandia Corporation. The type of award for longer periods of service will be determined later. The plan is to be administered by the Employee Records and Processing Division, 3153.

Beginning on the next page are the names of employees who have two years service but less than five. Names of five and 10 year service award recipients will be printed next issue.

**No job is so important and no service is so urgent that we cannot take time to perform our work safely.**





# shopping center

## CLASSIFIED ADVERTISING

Deadline: Friday noon prior to week of publication.

### RULES

1. Limit: 20 words
2. One ad per issue per person
3. Must be submitted in writing
4. Use home telephone numbers
5. For Sandia Corporation and AEC employees only
6. No commercial ads, please

Next Deadline: Noon, Jan. 20

## FOR SALE—

'54 PONTIAC DELUXE, 2-dr. R&H, WW tires, standard shift, 11,000 actual miles, \$1500. McGuire, Alb. 5-0537.

HEATER, 30,000 BTU oil space complete with stove pipe and damper, ideal for mountain cabin \$15. Baltz, Alb. 3-6027.

'55 FORD, 4-dr. Fairlane, light blue, 7,500 miles, loaded, see at 200 Oak St. NE, Goodrich, Alb. 7-9843 (day), Alb. 2-0495 (night).

'51 PLYMOUTH SUBURBAN, R&H, new motor and tires, \$650. Meyer, Alb. 6-3926.

WASHER, WESTINGHOUSE laundromat automatic, \$60. Goodwin, Alb. 6-1269.

'49 MERCURY, R&H, \$300. Blair, Alb. 6-6064.

WASHER Easy Spin Dryer DeLuxe model \$75. Strascina, ext. 48181.

GAS RANGE, standard size, window in oven door, \$40. McIlroy, Alb. 9-4977.

SEWING MASHINE, Portable GE electric, 1 year old, all attachments, \$65. Bussell, Alb. 6-1729.

DINETTE SET, chrome, 4 chairs, table, extra leaf, \$35. Cherb, Alb. 9-0949.

MOVIE CAMERA, Revere 8 mm. complete with case, \$35. Fletcher, Alb. 4-5331 after 5 p.m.

LAUNDROMAT, WESTINGHOUSE, \$55 or best offer. Furman, Alb. 8-8057.

35MM. NIPCA focal plane shutter 1/500, 50mm. F2, Nikkor, 100mm. F4, Serenar telephoto, case, etc. \$175; Marlin .22, \$50. Corney, Alb. 5-1490.

FLOOR POLISHER, Regina; Stetson size 7, gun rack, Magnavox combination 17 in. TV, AM-FM radio, phono; want chest of drawers. Ross, Alb. 9-1526.

LINHOFF CAMERA, 4x5, all accessories; flash, flash extension, 2 lenses. Hodges, Alb. 6-5097 after 5:30 p.m.

'52 STUDEBAKER CHAMPION Starlighter, R&H, OD, new paint, 3 new tires, \$175 down, \$500 total. Scotten, Alb. 9-1695 after 5:30 p.m.

REFRIGERATOR, 83 1/2-ft. with 30-lb. freezer and dry storage space, \$60. Goolsby, Alb. 5-1174.

'52 FORD V8 Country Sedan Station Wagon, R&H, Fordomatic, \$1195. Donaldson, ext. 46233.

WINCHESTER, 30-06 Model 70 with K-4 Scope and custom stock. McGriff, Alb. 2-6503 after 5 p.m.

'49 DODGE MEADOWBROOK 4-dr. 46,000 miles, original owner, \$400. Kidd, Alb. 6-1020.

'48 NASH AMBASSADOR 4-dr. sedan, R&H, OD, bed, one owner, \$250. Stueber, 8410 Flower Pl. NE.

'49 KAISER 4-dr. R&H, visor, \$175; 8-16mm. enlarging camera, new, makes 2 1/4 x 3 1/4 negatives from movie film, \$15. Shew, ext. 22156.

FRIGIDAIRE, 8-ft., \$85. Brown, Alb. 5-0566.

DRAPES, 2 pr. matching, picture window width, full length, lined, rose colored, both \$35. Cordaro, Alb. 5-0532, 1112 Dakota SE.

HOFFMAN DELUXE BRICK, 3 Br, 1 1/2 bath, walls, lawn, sprinklers, air conditioner, w/w carpeting. Murar, Alb. 9-0490.

GAS RANGE, WELBILT with glass oven door, electric clock, \$50. Reed, ext. 52275.

TRANSMITTER, amateur, bandswitching, V.F.O. 100 watt with National NC57 receiver and S/meter. Perry, Alb. 5-9349.

1000 APPROX. BF No. 3 common pine tongue and groove, 1x8, random length, entire lot, one buyer. \$105 per thousand. Mlynek, Alb. 4-2974.

JEEP, 4-WHEEL DRIVE with steel cab, extras; Aljoa 13-ft. house trailer. Milton, Alb. 9-4586.

'54 JEEP, 4-WHEEL DRIVE, truck, 12,000 actual miles. Armour, Alb. 9-1805.

MOTOR, 1/2 HP, 110-220V, A.C., 1725 RPM w/shaft and pulley. Dixon, Alb. 4-5933.

GAS RANGE, Detroit Jewel, \$50. Reck, Alb. 4-4123.

SINGLE BED, Beauty Rest, inner spring mattress, box spring, Hollywood frame, all \$50. Zownir, Alb. 6-3717.

REFRIGERATOR, 6 cu. ft. Servel gas; Universal gas range. Tischhauser, Alb. 2-1212.

PEN-PENCIL SET, Shaeffer's Snorkle, never used, half price \$12. Ray, Alb. 9-1330.

HOUSE, 1602 RIDGECREST DR., 2 BR. attached garage w/extra storage, near bases, walled yard, w/w carpeting, draperies, w/b fireplace. Hillard, Alb. 5-8515.

DOUBLE BED, couch, chairs, desk, chest of drawers, best offer for all or part. Pearlston, ext. 35251.

'52 KAISER, R&H, OD, reconditioned motor reasonable. Hare, Alb. 5-6246 after 5:30 p.m.

PIANO, GRASEMAR CAPHAM, bargain at \$89. Lopez, Alb. 2-9770.

'49 FORD 2-DR., clean, \$175. Clark, Alb. 5-5747.

DINETTE SET, chrome, 4 chairs, \$35; Philippine-made rattan sofa, 4 arm chairs, superior quality, \$100. Sorley, Alb. 5-9217.

'54 OLDSMOBILE, 4-dr. Super 88 sedan, R&H, Hydramatic, WW tires, 2-tone finish, 23,000 miles, \$1995. Durand, ext. 41138.

'52 DODGE 4-dr. R&H, will sacrifice. Jenkins, ext. 36281 evenings.

BLONDE OAK BOOKCASE headboard, \$10; arm chair upholstered black print, \$10. Burke, Alb. 5-4281.

GAS RANGE, 36-in. Magic Chef, \$30; children's gym set; 2 swings, glider, \$10; Jaeck, Alb. 6-2455.

AQUARIUM HEATERS and thermostat, half price. Campbell, 218 Rhode Island NE.

TV, '52 ZENITH 21-in. table model, \$110; large chrome dinette set, \$65. Shoemaker, Alb. 2-8292.

BABY CRIB w/mattress, \$10. Henderson, Alb. 9-2037.

'37 CHEVROLET COUPE, good tires, body, battery, heater, \$70. Haley, Alb. 4-3919 after 5 p.m.

'47 BUICK SUPER, R&H, no reasonable offer refused. Wiesch, ext. 33165.

BUNK MATTRESS and spring, 2 twin size, ideal for bunk beds, \$12.50 ea. Olive, Alb. 5-9151.

PUPPIES, ENGLISH SPRINGER Spaniel, excellent field stock, good with children. AKC Champion sire, \$50. Barth, ext. 46139.

WASHER, BENDIX ECONOMAT automatic, good condition except for motor, sell cheap; registered Beagle, 1 yr. old, housebroken. Schuknecht, Alb. 4-3501.

4-RM. HOUSE and bath on 3/4 acre in Sandia Park on Hwy. 10, \$500 down, total \$5950. Fackelman, 10417 Constitution NE.

**WANTED—**

TO FORM OR JOIN car pool from 2805 Virginia NE to 800. Lynes, ext. 47152.

RIDE OR JOIN car pool from Columbia and Garfield SE to 894 (Gate 7). Marion Walker, ext. 49163.

CLARINET AND TRUMPET in good condition. Timmons, ext. 20155.

RIDE OR JOIN car pool from 10,000 block Snow Heights Blvd. NE to 800. Dietrich, ext. 36157.

RIDE FROM FIFTH and Lomas to 800 or 802. Atler, Alb. 2-9352.

OLD WINCHESTER RIFLES, pay cash or trade colt revolvers or cap and ball pistols. Smitha, Alb. 9-1096.

GENTLEMAN TO SHARE modern, furnished, 2 BR apartment, 1832 Alvarado NE. Carli, Alb. 6-3980.

RIDE OR JOIN car pool from 104 Wellesley Dr. SE. Viola Maestos, Alb. 5-9542.

TO JOIN OR form car pool from vicinity Constitution and Wellesley NE to 800. Hillard, Alb. 5-8515.

TO JOIN CAR POOL from vicinity Claremont and Utah to 880. Cordes, Alb. 9-5745.

RIDE TO LOS ANGELES, Calif. area, about Jan. 20 or 21. Vandi, ext. 46157.

RIDE FROM vicinity Sycamore and Central to Personnel parking lot. Roberta Easley, Alb. 3-7660.

2 DRIVERS to join car pool from vicinity 61st and Central SW. Thomas, Alb. 2-8333.

**FOR RENT—**

2 BR HOUSE, \$75 mo.; 1 BR house, \$55 mo., both furnished including utilities, see at 304 Phoenix NW. Hungate, ext. 37147.

NEW APARTMENTS, 1 & 2 BR, available Feb. 1, 5 min. from base, partly furnished. Vigil, Alb. 6-6939 after 4:30.

3 BR HOUSE, redecorated, walled yard, near bases. Birkelo, Alb. 5-2513 after 5 p.m.

APARTMENT, 3-RM, furnished, private bath, utilities paid, near schools, walking distance to town, \$60 mo. Lopez, Alb. 3-8550.

ROOM IN PRIVATE HOME near base for young lady. Alb. 9-1418 after 5 p.m.



STONE MAP of Albuquerque Rockhounds Club is displayed here by Merrill Murphy, 5443, president. Each state is cut with diamond saws, then ground to high polish. Big Texas had to be spliced.

## Rockhounds Break Texas But Manage To Remake Union

Grinding wheels, diamond saws, polishing machines were employed by several Sandians and other members of the Albuquerque Rockhounds Club to construct a map of the United States . . . in stone.

Vic Engel, 1322, Ralph Calvert, 5131, Guy Moser, 1326, and Merrill Murphy, 5443, assisted in cutting, sawing, polishing and assembling the petrified woods, agate, obsidian pieces which went into the map.

The map weighs 20 pounds, measures 24 inches by 36. It was designed for display purposes only, and will be shown in the window of the Public Service Company building in downtown Albuquerque this month. Merrill Murphy exercises custodial care of the map when it is not on display.

Patterns for the states were taken from a child's jigsaw puzzle.

The state of Arizona is cut from fossilized dinosaur bone. Utah was sawed from desert agate; the natural design of the state depicts the Great Salt Lake in northern Utah.

Cutting of most states was no trouble at all; but ornery Texas, reputedly the largest state, required special handling and cutting at a Denver lapidary shop. On return trip to Albuquerque, Texas was broken, requiring a state-wide splice to restore it.

## Kibitzers Find Kriegspiel Ideal For Energetic Spectator Participation

The outcries of kibitzers and the drone of a referee's voice are distinguishing characteristics of a new chess game called Kriegspiel being played currently during noon hours in the east wing of Bldg. 802.

Kriegspiel's kantankerous kibitzers, according to Mike Norris, 5120, are just supposed to watch the game in a quiet, dignified way. But these chess fans in 5100 often deride a player's strategy, pass caustic comments, are permitted to do anything but execute an actual chess move. "This makes the game exciting," says Norris, a longtime Kriegspiel fan.

Kriegspiel, invented in the early 19th Century by soldiers in a German military academy, is a form of "blind chess," in which both players are kept unaware of their opponent's moves by an intervening barricade set up between them.

Each player uses a chess board and two sets of men; a third board with a separate chess set is supervised by the third participant, the referee, who monitors all moves, announces checkmates, captures, declares each move legal or illegal. The referee makes declarations as to validity of each move.

Although the boards of the opponents are visible to the referee, the players cannot, in turn, view the referee's board. They can make

moves — and gain information — only by pushing out a piece blindly, hoping the play will be legal.

Kriegspiel chess demands a fine memory, good reasoning, and a well-developed geometrical sense, according to Norris. Even so, Norris explains, Kriegspiel often deteriorates into a series of unreasoned moves in the latter stages, until a checkmate results, or both players resign under increasing pressure of kibitzers who want their turn at the chess boards.

Sandia's Kriegspiel fans began their games about two years ago. They found the games, at first, too slow for noon-hour play. Later, the conventional chess rules were modified by a Sandia ruling that pawns could not capture unless the move occurred immediately after an adjacent piece had been removed.

Players in the 5100 organization, stronghold of Kriegspiel competition, include Ronald W. Shephard, Michael Norris, Woodrow Bledsoe, David Kleinecke, Stoughton Bell, Joseph Weihe, and Dale Young.

Norris claims the "blind" Kriegspiel chess consumes less time than the routine game, and is more exciting in its challenge to memory and reason. "Most Kriegspiel games last less than 45 minutes," he says, "kibitzers don't let them go on much longer."

## 240 Players Taking Part in Basketball League Competition

Some 240 Sandia Corporation employees are participating in an 18-team basketball league, now in the fourth week of court competition.

Playing Monday, Tuesday, Wednesday and Thursday evenings of each week, interest in the new league is running high.

Teams to watch include the 1900 aggregation, a well-balanced club which employs the fast-break to good advantage; the 2700-AEC squad with height, speed, shooting accuracy, and the 5200 group with three starters who tower over 6 feet 4 inches.

An outstanding player in the League is Lee Daily, 1641-2, who has made game scores of 28 and 19 points.

**AAU Boxing Planned At Club Feb. 17**

Twenty-four rounds of AAU sanctioned boxing will be presented at the Coronado Club Feb. 17.

The Club Board of Directors has made arrangements with local fight promoter James Cleary to schedule eight bouts. Tickets will be 50 cents for members, 75 cents for guests.

## LEAGUE STANDINGS

Sandia Corporation Employees Basketball Association

Organization	Won	Lost
1900	3	0
1600(1)	2	0
2700-AEC	2	0
5200	1	0
2200	2	1
5500	2	1
1300-5100	1	1
1700	1	1
2100	1	1
2400(1)	1	1
2400(2)	1	1
2500-3100	1	1
4100	1	1
5300	1	1
1200	1	2
1600(2)	0	3
2300	0	3
5400	0	3

## SCHEDULE

Sandia Corporation Employees Basketball Association Jan. 13 thru Jan. 27

Date	Time	Game
Jan. 16—Monday	6:30	2200 vs 5300
	7:30	1700 vs 2700, 5100, AEC
	8:30	1900 vs 1300
Jan. 17—Tuesday	6:30	5200 vs 1200
	7:30	5400 vs 2300
	8:30	5500 vs 4100
Jan. 18—Wednesday	6:30	1600 (team 1) vs 1600 (team 2)
	7:30	2100 vs 2400 (team 1)
	8:30	2200 vs 1900
Jan. 19—Thursday	6:30	5200 vs 2700, 5100, AEC
	7:30	5400 vs 1300
	8:30	5300 vs 4100
Jan. 23—Monday	6:30	5300 vs 1200
	7:30	2100 vs 5400
	8:30	5200 vs 2400 (team 1)
Jan. 24—Tuesday	6:30	2500, 3100 vs 2400 (team 2)
	7:30	2200 vs 2700, 5100, AEC
	8:30	1900 vs 2300
Jan. 25—Wednesday	6:30	4100 vs 2400 (team 1)
	7:30	5200 vs 5500
	8:30	1700 vs 5300
Jan. 26—Thursday	6:30	2500, 3100 vs 1600 (team 2)
	7:30	2100 vs 1200
	8:30	1600 (team 1) vs 2400 (team 2)



RAPT EXPRESSION is common to concentrating kriegspiel contestants, shown above during a noonhour workout. Left is Stoughton Bell, and right is Joe Weihe, both of 5124. Referee in right foreground is Mike Norris, 5121. Kibitzer, left, is Dave Kleinecke, 5124.

SLEEPING ROOM in private home, near bases and bus line, garage available. Jordan, Alb. 5-4832.

**FREE—**

PUPS, 3 Collie-Boxers, 5 wks. old. Pearlston, ext. 35251.

PUP, half beagle. Schuknecht, Alb. 4-3501.

## First Aid Class

Members of the Amateur Radio Caravan Club will assemble on the air Jan. 25 at 7:30 p.m. for a first-aid class to be held in the Lovelace Clinic Therapy building on Gibson Blvd.